

16. A NOTE ON THE OCCURRENCE OF *MELANOCENCHRIS JACQUEMONTII* (POACEAE) IN UTTARAKHAND¹PRAKRITI DOBHAL², SMRITI SAWAN², SUMAN LATA BIST², MANISH K. KANDWAL^{2,3} AND S.P. JOSHI^{2,4}¹Accepted May 21, 2008²Department of Botany, D.A.V. (P.G.) College, Dehradun 248 001, Uttarakhand, India.³Email: zoysia04@yahoo.co.in⁴Email: spjbotdav03@yahoo.co.in

The present communication pertains to the occurrence of the species *Melanocenchris jacquemontii* Jaub. *et* Spach. The voucher specimens and photographic plate with habit and floral dissections are deposited in the Departmental Herbarium BSD and DAV (P.G.) College.

Melanocenchris jacquemontii Jaub. *et* Spach. III Pl. Or. 4: 36, t325. 1851; Bor, Grass. Burma Ceyl. India & Pak., 473, 1960; Cope, Fl. Pak., 125, 1982; Raizada *et al.*, Grass. Upper Gang. Plain - III Pooid. 33, 1983; Nair and Nayar in Bull. Bot. Sur. India. 16(1-4): 142, 1974; Karthikeyan *et al.*, Fl. Ind. Enum. - Monocot. 235, 1998. *Melanocenchris royleana* Nees *ex* Steud., Syn. Pl. Glum. 1: 218. 1854; Duthie, Fodder Grasses 54, 1888. *Gracilea royleana* (Nees *ex* Steud.) Hook. f., Fl. Brit. India. 7: 284; Blatter & McCann, Bombay Grasses 248, 1935.

Specimens Examined: Uttarakhand, Dehradun district, Raipur, 21.ix.2006, Prakriti Dobhal, ETRL 756 (BSD);

Gullarghati, 15.ix.2007, Smriti, ETRL 899 (DAV); Suman Lata, ETRL 900 (DAV).

Fl.: August-September.

Habitat: Found growing in sandy and stony dry river bed.

Distribution: India (drier regions and hillsides), Pakistan, Arabia and Iraq.

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17. *ARISAEMA TUBERCULATUM* C. FISCHER (ARACEAE) FROM MUKURTHI NATIONAL PARK, NILGIRI BIOSPHERE RESERVE, TAMIL NADU, INDIA – A NOTE¹V.S. RAMACHANDRAN² AND S. PAULRAJ³¹Accepted January 31, 2007²Department of Botany, Kongunadu Arts & Science College, Coimbatore 641 029, Tamil Nadu, India.

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Biodiversity studies and conservation measures depend on good and up-to-date taxonomic data (Valdecasas and Camacho 2003). Reliable data on the vulnerability of species to extinction and their extinction threats also require sound biological monitoring of tropical ecosystems, which is not limited to a few flagship or umbrella species (Basset *et al.* 2004). Being a core area of Nilgiris Biosphere Reserve, a rapid assessment survey was conducted during 2000-2001 in Mukurthi National Park (11° 10'-11° 22' N; 76° 26'- 76° 34' E), to study the herbaceous and orchid flora. This survey is a collaborative project with Tamil Nadu Forest Department, with a view of making an inventory, especially of ephemeral herbaceous forms. Out of 225 species collected and enumerated, 35 species were endemic to the Nilgiri Biosphere Reserve (Vivekananthan *et al.* 1997). Out of these, *Arisaema*

tuberculatum C. Fischer is described in detail. The genus *Arisaema* belongs to Family Araceae having about 150 species distributed in East Africa and Arabia, Tropical and East Asia, and West-North America. It was noticed that some species are utilized for medicine and are edible, and commonly referred to as Cobra lily, Dragon-arum and Snail-flower.

Arisaema tuberculatum C. Fischer in Bull. Misc. Inform. 1925: 167. 1925 & in Gamble, Fl., Madras: 1891. Addenda 1936; B. Sharma *et al.*, in Biol. Mem. 2: 151: 1977; Nayar, Hotspots Endem. Pl. India 217. 1996. *A. convolutum* C. Fischer in Bull. Misc. Inform 1934: 165. 1934, non Nakai, 1934.

Dioecious, cormous herb; corm c. 6 cm across subglobose. Cataphylls 2 or 3 c. 20 cm long, obtuse. Leaf solitary (petioled, c. 65 cm long; leaflets 7-12 (-15), 12-38 x 2-9 cm, digitate, sessile, narrowly oblanceolate, finely caudate-acuminate, lateral nerves

c. 20 pairs, anastomosing in an intramarginal nerve. Peduncle c. 40 cm long. Spathe 7.5-16 cm long, narrowly infundibular, tube 4-6 cm; limb 3.5-10.0 x 3-6 cm, ovate, arching above, acuminate, terminating in a pendant filiform tail of 4-17 cm long. Spadix 5-7 cm long, sessile, erect, cylindric. Pistillate flowers compact. Ovary subglobose, ovules 4; style short; stigma muricate. Staminal flowers scattered; anthers stalked, subglobose dehiscent by pores. Neuters present in pistillate spadix; absent in staminate spadix. Appendix cylindric, swollen in the middle, terminating in a clavate, convoluted tubercle.

Fl. & Fr.: April-June.

Type: Nilgiri Hills, Pennant Shola, Farsons Valley E. Barnes 677 (MH).

Distribution: INDIA: Tamil Nadu. Nilgiri district, Bangitappal.

Ecology: Growing at an elevation of 2,250 m on margins of Shola forests.

Specimens Examined: INDIA: Tamil Nadu, Nilgiri district, Pennant shola, Parsons Valley, 20.v.1933, E. Barnes 677(MH); Bangitappal, 27.iv.2001, V.S. Ramachandran and C.P. Anil Varghese 2899(KNASCH).

Earlier botanists (Gamble 1936; Sharma *et al.* 1977; Ahmedullah and Nayar 1986; Bhargavan 1989) have included this taxon as one of the endemic species highly restricted to upper Nilgiris, Nilgiri Biosphere Reserve and Peninsular India; however, authors Sharma *et al.* 1977, Ahmedullah and Nayar 1986, Bhargavan 1989 differ from one another, while assigning the threat status to the plant as rare (Bhargavan 1989), rare and threatened (Ahmedullah and Nayar 1986); in spite of rarity, and restricted occurrence, this species does not find a place in the Red Data Book of Indian Plants (Nayar and Sastry 1987, 1988, 1990). Due to its niche specificity, occurrence in isolated patches and its ephemeral nature might have led to the non location of this elegant species by earlier botanists (Sharma *et al.* 1977; Ahmedullah and Nayar 1986; Bhargavan 1989).

It differs from its allies in having: spadix cream-coloured, cylindrical with subglobose convoluted, spathe with distinguishing characters – dark purple with 5-7 white bands. It is suggested that this species is a potentially threatened plant, and should be considered for inclusion in the Red Data Book of Indian Plants (Nayar and Sastry 1987, 1988, 1990).

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18. NEW RECORDS OF ORCHIDS FROM ANDHRA PRADESH, INDIA-I¹

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Floristic survey for orchids was taken up in the east Godavari and Visakhapatnam districts of Andhra Pradesh during November 1994 and October 2005 under an All India Coordinated Research Project on Taxonomy Capacity Building of Orchids, sponsored by the Ministry of Environment and Forests, Government of India. During this survey, 35 orchid

species were collected and identified. Voucher specimens were deposited with the herbarium of Regional Plant Resource Centre (REPRECENT), Orissa. The live plants are being maintained in the orchidarium of the Regional Plant Resource Centre. Roxburgh (1795), Elliot (1859), Beddome (1874), J.D. Hooker (1888-1890) and Fischer (1928) in their works did